

Effects of
Paralanguage in
First Language on
Paralanguage
in Second
Language

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Learning a foreign language is becoming essential in college and business. The number of bilingual speakers is increasing in the world. No matter if the skill level of these speakers is advanced, intermediate, or beginner, they at least know that the system of the second language functions differently compared to the system of their mother language.

There are a number of schools that teach foreign language to students. There are also schools that teach the native language of its country to those who came from other countries. In these schools, teachers teach basic skills, such as how to read, how to write, how to listen, and how to speak. Although students may not know linguistic terminology, they are learning the second language phonologically, morphologically, semantically, and syntactically in class as well as outside the class if they are living in a foreign country.

However, there is one crucial subject that they do not learn in class: paralinguage—that is, body language, facial expression, tone of voice, etc. Although they know how to communicate in the second language, many of them have difficulty communicating in the paralinguage. For example, I am a bilingual speaker: Japanese is my first language and English is my second. I learned English in high school in Japan and then came to the United States for college.

One day, I miscommunicated with my American roommate when I was talking about money and signed “money” by making a circle with my thumb and index finger. She knew that I was talking about money; however, when I did the hand gesture, it confused her. In America, the hand gesture for money is rubbing the thumb with the index finger and middle finger.

Many second language learners have similar experiences and may have wondered the following: does the paralinguage in my first language (L₁) influence the paralinguage in my second language (L₂) in some ways?

One study shows that the gestural behavior of the first language may influence gestures in the second. For example, the use of large gesture space of Italian speakers may influence the use of small

gesture space in learning Swedish as their second language or vice versa (Gullberg 2006). Another study shows that second language learners maintain their first language thinking-for-speaking patterns in paralinguage when narrating in their second language (MaCafferty and Stam 2008). It seems that concepts of L1 paralinguage are stored as mental representations in the L2 learners' cognitive brains. This may influence their L2 paralinguage by activating their L1 thinking-for-speaking patterns and using applicable L1 paralinguage.

By contrast, there is also a possibility that noticing and learning the use of gestural behavior of L2, such as posture, eye contact, or hand, head, facial, or whole-body movement, has no significant change or influence between paralinguages in L1 and L2 (Makarchuk 2002). Kettemann and Clair (1980) state that, for bilingual speakers, knowing two different paralinguages is just as important as having a command of more than one language in communicating. Among the studies found on paralinguages between L1 and L2, there is no direct study conducted on the influence of paralinguage in L1 on paralinguage in L2, especially about L2 paralinguage of L2 learners being in the target-language speaking area, immersed in the culture. Since I am Japanese and there are many other native Japanese speakers living in the United States, this study will focus on the influence of Japanese (L1) paralinguage on English (L2) paralinguage.

1. L1 Paralinguage Affects L2 Paralinguage.

Linguists, psychologists, and other scholars have found many positive results about the influence of L1 paralinguage on L2 paralinguage. For instance, Kirch found that the habits of using the native non-verbal system influence use of the target non-verbal system and give learners' behaviors a "foreign accent." Just as transferring the phonological habits of learners' own language to another language produces a foreign

accent, Kirch believes that this same idea applies to paralanguage between the first and second languages. Kirch also paraphrases Darwin: gestures are developed along biological lines (Kirch 1979). Body language is more deeply imbedded in the context of the communicational situation and more subtle, whereas gestures are complete messages in themselves and blatant and unavoidable (Kirch 1979). Thus, because learners have different gestural habits, it takes time and effort to switch native habits to target habits. For example, it is suitable to make a noise when eating noodles in Japan because it implies deliciousness, whereas the same behavior shows bad manners or makes one look uneducated in the United States.

Thinking-for-speaking patterns in a first language also have an influence on thinking-for-speaking patterns in a second language. A study done with Spanish learners of English and English learners of Spanish showed that Spanish speakers still did thinking-for-speaking in Spanish when narrating in English. The same can be said of English speakers when narrating in Spanish. This behavior indicates that speakers maintain their L₁ thinking-for-speaking patterns when narrating in their L₂ and continue to focus on their native gestures. The English learners of Spanish continued to focus their path gestures on verbs or ground noun phrases when they should have focused on satellite or ground noun phrases. On the other hand, the Spanish learners of English continued to focus their path gestures on satellite or ground noun phrases when they should have focused on verbs or ground noun phrases (MaCafferty and Stam 2008).

The gestural repertoires of the first language may also influence gestures in the second language. One study stated that L₂ learners' gestures continue to align with L₁-like units, suggesting that learners remain under the influence of their L₁ and continue to assign importance to semantic elements in accordance with their L₁ (Gullberg 2006). In other words, both L₁ and L₂ gestures remain in learners' behaviors. Then, L₂ speakers tend to produce more gestures in L₂ than

L1 because learners' gestures compensate for speech by knowing and using both L1 and L2 gestures (Gullberg 2006).

To summarize, L1 gestural habits affect use of L2 gestures, giving learners a "foreign accent." L1 thinking-for-speaking patterns in narrating in L2 cause learners to focus more on their native gestures than on their target gestures. Also, both L1 and L2 gestures remain in learners' behavior and continue to work together for compensating in speech.

2. L1 Paralanguage Does not Affect L2 Paralanguage.

L1 paralanguage may have an influence on L2 paralanguage in the beginning of learning L2; however, as learners continue to study L2 and be immersed in the target culture, they become more target-like in their abstract gestures. Thus, L1 paralanguage may not affect L2 paralanguage. Rather, non-verbal gestural behavior in L2 can change L1 gestural behavior toward more L2-like gesture production (Gullberg 2006). Another study also stated that advanced L2 learners use more speech-related, meaning-enhancing gestures compared to beginning or intermediate L2 learners, who use more gestures in their native system than in their target system (Gregersen, Olivares-Cuhat and Storm 2009). These studies do not address L1 gestures or whether paralanguage has an influence on L2 gestures or paralanguage when speakers have been learning L2 and were immersed in the L2 culture. Rather, they address that L2 paralanguage can have influence on L1 paralanguage in production.

Another study showed that learners use different paralanguages and linguistic strategies appropriate for the language they are using. For example, in a different study, learners who studied English as a second language used English gestures on manner verbs with path satellites when describing scenes in English. But when describing the same scenes in their first language, Turkish, they used their native

gestures on path verbs accompanied by manner adjuncts (Özçalışkan 2012). L2 learners know more than one type of paralinguistic just as they know more than one language, and they use them differently (Kettemann and Clair 1980). Thus, it is possible to say that advanced L2 learners have two different paralinguistic systems in language production and use them differently and appropriately depending on the language they use. They distinguish the use of the two types of paralinguistic.

3. Methodology.

In order to define whether or not paralinguistic in the first language affects paralinguistic in the second language, I examined the gestures of native Japanese speakers who have been in the United States for more than two years. I examined the gestures of those who told me a story in their second language, English, and the gestures of those who told me a story in their native language, Japanese. The latter was the control group of this study. In order to gather data, I visited the Japanese LDS institute in Provo. There were many native Japanese speakers of college age (between 20 and 28 years old). Most of them were students at Brigham Young University or Utah Valley University, and some were students at the English Language Center (ELC). Many of them had been living in the United States for two or more years, with five to six years being the longest. I asked those who had been in the United States for more than two years to participate in the study and recorded twenty-three participants. I also visited the Japanese Teaching Assistant office at BYU and recorded seven participants. I recorded a total of thirty native Japanese people: fourteen males and sixteen females. Based on their years of living in the United States, I divided them into two groups: storytellers in Japanese and storytellers in English. Each person in both groups was asked to tell his or her most embarrassing

moment in his or her life. The first group was asked to tell the story in Japanese and the second group in English.

3.1 Storytellers in Japanese.

These participants were native Japanese: they were born and raised in Japan. They had learned English in junior high school and high school, but never had lived in the United States prior to schooling or serving an LDS mission in the United States. All participants had been living in the United States for two to four years. The number of the participants storytelling in Japanese was seventeen: ten males and seven females.

3.2 Storytellers in English.

Similar to the participants storytelling in Japanese, these participants were born and raised in Japan and learned English in junior high school and high school, but they had never lived in the United States until their college education or mission. The participants have been living in the United States for five to six years. The total number of the participants storytelling in English was thirteen: four males and nine females.

3.4 Stimuli.

I will determine the difference between the two groups by their non-verbal communications. Compared to western cultures, Japanese culture is more neutral in their display of emotions. Japanese people tend to hide their emotions, feelings, and opinions rather than show them. The culture is based on collectivism rather than individualism. Japanese people prefer to be in a group and value the harmony of the group, whereas people in western cultures, such as American culture, value individualism or freedom. Japanese culture is also based on relationships with others. Thus, their degree of politeness is essential in communication. Therefore, facial expressions, tone of voice, eye contact, space, etc., for instance, are all based on these factors (Kirkegaard 2010).

In this study, I will focus on one type of paralanguage: arm gestures. Japanese people tend to use far fewer arm gestures compared to Americans. This is because Japanese people are more passive and do not prefer to use big arm movements. They have their own personal space boundaries and value the harmony of a group. When an individual uses large, expressive arm gestures, there is a possibility that the individual could be singled out of the group. This could threaten the harmony (Kirkegaard 2010). Broad movements of the arms are also considered impolite in Japanese society (Rugsaken 2006). In contrast, in western cultures, big arm movements are used to enhance the size of the speaker, to intimidate listeners, and to make the speaker seem more powerful (Kirkegaard 2010). Since the participants are living in American culture and communicating mostly with American people, I would like to analyze whether or not their arm gestures are based more on American culture—that is, I would like to determine if their arm gestures are influenced by American paralanguage.

3.5 Procedure.

Participants were asked to fill out their background information through a survey (Appendix A). Then, they were asked to tell their most embarrassing moment while standing. They were asked to perform individually, so they would not be able to see others performing. I video-recorded their performance for analysis. Based on the three levels (small movement = 0–3, medium movement = 4–7, and large movement = 8–10; see Figure 1), I watched participants' performances and labeled the degree of their arm movements. After the analysis, I had one native Japanese student and one American student go through the same process: watch the participants' performances and label the degree of their arm movements.

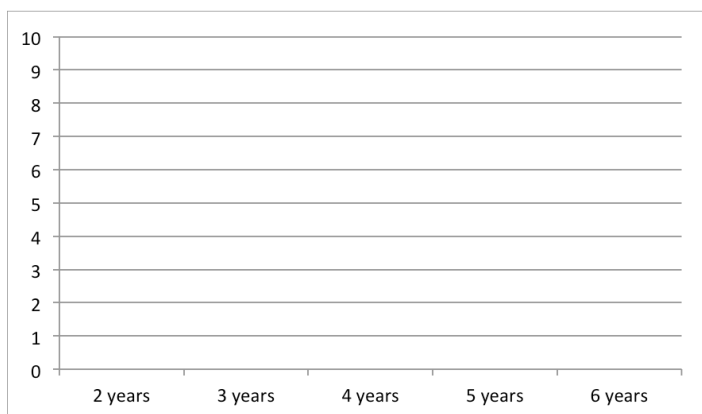


Figure 1. Analysis Graph

3.6 Threshold of Significance.

I compiled the data from both Japanese and American viewers for each participant from both groups. Since I was looking at the influence of L1 paralinguistic on L2 paralinguistic, the threshold of significance will be if the average number of movements from the second group (storytellers in English) stays below the number of neutral movement, signified by five on my 0–10 scale. If the average number is below five, then it will represent no significant difference in gestural production when speaking English compared to when speaking Japanese. This would support my hypothesis that L1 gestures dominate over L2 gestures when speaking English.

4. Analysis.

The result of my analysis is illustrated as a blue line in Figure 2; the result of the analysis of the Japanese judge is illustrated as a red line; and the result of the American judge's analysis is illustrated as a green line. Statistically, the average number of arm movements in the

first group (storytellers in Japanese) from my result was 3.08, and the average number of arm movements in the second group (storytellers in English) was 5. Likewise, the average number in the first group from the result of the native Japanese judge was 3.03; the average number in the second was 4.85. The average number in the first group from the result of the American judge was 1.86; the average number in the second was 3.91. Combining all the results of the three judges, the total average number in the first group was 2.66; the total average number in the second group was 4.59.

Overall, the arm movements in the first group stayed under the threshold of influence for Japanese paralinguage. The arm movements in the second group also stayed under the threshold of influence for Japanese paralinguage, but their production of arm gestures was influenced a little more by American paralinguage compared to the first group's.

Since the threshold of significance is set at 5 and the average number of arm movements in the second group was 4.59, there is no significant difference in use of paralinguage between the two groups. That is to say, the production of arm gestures while speaking English is still based on the Japanese paralinguage system.

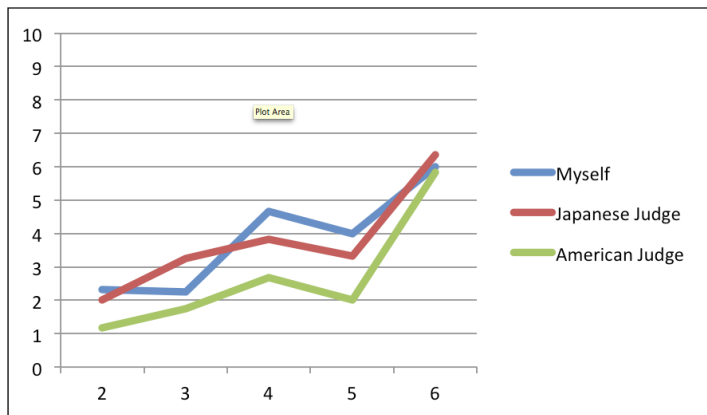


Figure 2. Results of arm movements in both groups from the three judges

5. Conclusion.

The results indicate that there is no significant difference in production of arm movements between the storytellers speaking in Japanese and the storytellers speaking in English. Participants from both groups produced arm movements based on their first paralinguistic system—Japanese paralinguistic. This means that Japanese (L1) paralinguistic can affect American (L2) paralinguistic. This supports my hypothesis.

However, there were some participants in the second group who produced the American-like gestures in their arm movements. As the graph in Figure 2 shows, the production of arm movements when speaking English can be more American-like or differentiated from Japanese paralinguistic in arm gestures as the years of living in the United States increase. It is possible that the production of arm movements of native Japanese speakers could be based on the American paralinguistic system when speaking English if they had lived in the United States for more than five years. In addition, it is also possible to say that some participants in the first group were influenced, even by a small amount, by the American paralinguistic system in arm movements even though they were speaking their native language, Japanese, because the average size of arm movements in the first group gradually increases overall as the years of living in the United States increase. Thus, it is possible that American paralinguistic could instead influence the production of arm movements of Japanese speakers even when they spoke Japanese.

Although the average results in this experiment were no different between groups—meaning that L1 paralinguistic can affect L2 paralinguistic—the graph in Figure 2 suggests that more effective experiments could have been done, and the results would have been opposite. One limitation that may have occurred in this study is the fact that speakers are likely to use gestures differently when being video-recorded compared to the way they use gestures in normal, casual situations. The setting of being video-recorded seemed to make speakers tense and uncomfortable in gestural production.

6. Future Work.

In order to eliminate the restrictions I had in this study, I would like to see how native Japanese speakers use their arm gestures at a specific event or activity, such as Family Home Evening. Additionally, the tone of voice, facial expression, and other types of body language could be observed to determine if there were some influences of American paralinguistics among native Japanese speakers.

It could also be interesting to see if native Japanese speakers switch their paralinguistics depending on the audience. Perhaps paralinguistics of native Japanese speakers is completely based on English paralinguistics if the audience are all native English speakers; perhaps it would still be based on English paralinguistics even if the audience was a mix of native English speakers and native Japanese speakers. In the latter case, it could be observed which paralinguistics native Japanese speakers take: would they take either Japanese or English paralinguistics due to the difficulty of switching the paralinguistics system? Or would their paralinguistics be mixed with both Japanese and English paralinguistics systems?

Another possibility for future work is cross-linguistic influence in paralinguistics. Most who have experienced being immersed in foreign culture agree that their first paralinguistics is somehow different from before. It may be interesting to study how the length of stay in a foreign culture influences speakers' native paralinguistics with features of the target culture's paralinguistics.

For more effective test stimuli, facial expressions could be useful in the study of paralinguistics influence between Asian speakers and non-Asian speakers. Cultures from East Asia tend to be more restrained and neutral-oriented in showing feelings and emotions with the face, whereas non-Asian cultures such as European or American tend to be more expressive and emotion-oriented. For example, smiling does not always indicate joy, happiness, or friendliness in Asian cultures—it can be a sign of anger, displeasure, or embarrassment

(Kirkegaard 2010). Thus, it would be interesting to determine if facial expressions of Asian speakers could be more expressive and emotion-oriented when being immersed in non-Asian cultures, and vice versa.

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Appendix A

Living Background

1. Name:
2. Gender:
3. Age:
4. How long have you been living in the United States (including mission)?